



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,695	12/30/2003	Robert Coon	WEAT/0535	2005

36735 7590 10/13/2006

PATTERSON & SHERIDAN, L.L.P.
3040 POST OAK BOULEVARD, SUITE 1500
HOUSTON, TX 77056

EXAMINER

COLLINS, GIOVANNA M

ART UNIT PAPER NUMBER

3672

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/748,695	Applicant(s) COON ET AL.	
	Examiner Giovanna M. Collins	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-18,24-29 and 32-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-13,16-18,24-29,36,37 and 39-41 is/are rejected.
- 7) ☒ Claim(s) 14,15,32,34,35 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/24/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 29 is objected to because of the following informalities:

Claim 29 recites the limitation "the length of a sleeve flow port" in line 2. There is insufficient antecedent basis for this limitation in the claim as this limitation has not been previously recited.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1,8,12,25-27,36,37 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Grimmer et al. 3,051,143.

Referring to claims 1 and 26, Grimmer discloses (fig. 2) a tool for use in a wellbore comprising a tubular housing (22) having a bore and at least one flow port (at 44) disposed through a wall; a sleeve (70) slidable mounted in the housing, where the sleeve has a bore and the at least one sleeve flow port (77) alignable with the housing flow port, where a length of the sleeve flow port corresponds to a length of the housing flow port, an annular seal assembly (at 59) comprising an adapter (61) the length of

Art Unit: 3672

flow port, an annular seal assembly (at 59) comprising an adapter (61) the length of the adapter is substantially larger as the length of the sleeve flow port and at least one chevron shaped first sealing element (59) disposed proximate a first end of the adapter.

Referring to claims 8 and 25, Grimmer disclose the adapter (61) is a center adapter and the seal assembly first has a first end adapter (60 at top), a first chevron shaped sealing element (59 at top) in a first axial orientation, a second end adapter (60 at bottom) and a second chevron shaped sealing element (59 at bottom) in a second vertical orientation opposite the first orientation.

Referring to claim 12, Grimmer discloses the housing comprising an upper housing (at 30) and a lower housing (at 28) threadingly coupled together and one on the housings (30) has a lip and the other housing (28) has a tapered surface so the housings are coupled the lip mates with the tapered surface to form a seal.

Referring to claim 27, Grimmer discloses a method using the tool as recited in claim 1, comprising running the wellbore tool in to a pressure wellbore, sliding the sleeve (70) over the seal assembly (at 59) where the adapter (at 60,61) will limit the fluid flow across the seal assembly.

Referring to claim 36, Grimmer discloses the first sealing element (59) is in direct contact with the adapter (61).

Referring to claim 37, Grimmer discloses the sleeve flow ports (77) are longitudinal slots.

Referring to claim 39, Grimmer discloses the adapter (61) is substantially the same as the length of the sleeve flow port (77).

2. Claims 1, 26 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Bassinger 2,317,021.

Referring to claims 1 and 26, Bassinger discloses (fig. 1) a tool for use in a wellbore comprising a tubular housing (12) having a bore and at least one flow port (at 16) disposed through a wall; a sleeve (27) slidable mounted in the housing, where the sleeve has a bore and the at least one sleeve flow port (28) alignable with the housing flow port where a length of the sleeve flow port corresponds to a length of the housing flow port, an annular seal assembly (at 29) comprising an adapter (24) the length of the adapter is substantially larger as the length of the sleeve flow port at least one chevron shaped first sealing element (59) disposed proximate a first end of the adapter.

Referring to claim 40, Bassinger disclose the adapter has a length greater than each length of each port disposed through the wall of the sleeve.

3. Claims 13, 16-18,28-29 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Schertz 3773441.

Schertz discloses (fig. 1a) a seal assembly (At 12) comprising a first end adapter (27), a second end adapter (below bottommost element 26), a center adapter (between elements 26), and an annular seal assembly comprising a first chevron shaped sealing element (26) in a first axial orientation, and a second chevron shaped sealing element (26) in a second vertical orientation opposite the first orientation where the sealing

Art Unit: 3672

elements are in direct contact with the center adapter and the length of one of the adapter (27) is greater than the combined length of the rest of the seal assembly.

Referring to claims 16-18, 28, Schertz discloses the adapters (27 and around element 26) are constructed from metal and the sealing elements (26) are constructed of an elastomer or thermoplastic polymer.

Referring to claim 29, Schertz discloses the length of one of the adapters (27) is greater than the length of a sleeve flow port (at 28).

Referring to claim 33, Schertz discloses the adapters (27 and around element 26) and sealing elements (26) are annular.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 10-11 and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murray 5,316,084 in view of Bassinger 2,317,021.

Referring to claims 1 and 40, Murray discloses (fig. 2) a tool for use in a wellbore comprising a tubular housing (119) having a bore and at least one flow port (106) disposed through a wall; a sleeve (111) slidable mounted in the housing, where the

Art Unit: 3672

sleeve has a bore and the at least one sleeve flow port (116) alignable with the housing flow port where a length of the sleeve flow port corresponds to a length of the housing flow port, an annular seal assembly (at fig. 8) comprising an adapter (at 209) and at least one chevron shaped first sealing element (207) disposed proximate a first end of the adapter. Murray does not disclose the length of the adapter is substantially larger as the length of the sleeve flow port. Bassinger teaches a sealing element where the adapter (at 24) is substantially larger as the length of the each port disposed through the sleeve. The adapter helps to block the full pressure in the port from the seals (page 2, col. 2, lines 1-13). As it would be advantageous to help prevent the seals from having the full force of pressure at the ports, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the tool disclosed by Murray to have the adapter the same or greater than the length of the flow port in view of the teachings of Bassinger.

Referring to claim 10, Murray discloses equalization ports (at bottom of port 116) that are smaller than the sleeve flow port (at 116).

Referring to claim 11, Murray discloses means (111a,b and 119a,b,c) for selectively retaining the sleeve in a closed, open and equalization position.

Referring to claim 41, Murray discloses a tubular housing (119) having a bore and at least one flow port (106) disposed through a wall, a sleeve (111) slidably mounted within the housing having a sleeve flow port (116) alignable with the housing flow port and at least one equalization port (at bottom of port 116) that is substantially smaller than the sleeve flow port and an annular seal assembly (at fig. 8) comprising an

Art Unit: 3672

adapter (at 209). Murray does not disclose the length of the adapter is substantially larger as the length of the sleeve flow port. Bassinger teaches a sealing element where the adapter (at 24) is substantially larger as the length of the sleeve flow port and a housing flow port. The adapter allows the ports to be more positively sealed if pressure is exerted through the ports (page 2, col. 2, lines 10-13). As it would be advantageous to help more positively seal the ports when in a closed position, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the tool disclosed by Murray to have the adapter the same or greater than the length of the flow port in view of the teachings of Bassinger.

5. Claims 5-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimmer '243 in view of Baugh '547.

Referring to claims 5-7, Grimmer does not disclose protrusions on the center adapter. Baugh teaches a plurality of protrusions around and inner and outer side of a center adapter. Baugh teaches the protrusions help to reduce tearing and abrading the adapter as it is installed (col. 6, lines 17-26). As it would be advantageous to prevent tearing the adapter, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the tool disclosed by Grimmer to have the center adapter have protrusions in view of the teachings of Baugh.

Referring to claim 9, Grimmer does not disclose protrusions on the first end adapter. Baugh teaches a protrusion on an adapter. Baugh teaches the protrusion provides backup sealing (col. 5, lines 38-40). As it would be advantageous to have

Art Unit: 3672

backup sealing it would be obvious to one of ordinary skill in the art at the time of the invention to modify the tool disclosed by Grimmer to have the center adapter have protrusions in view of the teachings of Baugh.

6. Claims 24 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimmer '243 in view of Murray et al. 5,316,084.

Grimmer discloses a first chevron shaped sealing element (59 at top) but does not disclose the sealing element is made form an elastomer or the adapter is made from a thermoplastic or metal. Murray teaches that it is well known in the art to have a seal stack have an adapter made of metal and a sealing element made of an elastomer (col. , lines 51-56). Therefore it would be obvious to modify the tool disclosed by Grimmer to have the adapter made of metal and the sealing element made of an elastomer in view of the teachings of Murray because it is well known in the art.

Allowable Subject Matter

7. Claims 14-15,32,34-35 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 7/21/06 have been fully considered but they are not persuasive.

Art Unit: 3672

The applicant argues the Grimmer reference does not disclose a length of the sleeve flow port substantially corresponds to a length of the housing flow. The applicant is incorrect. The applicant is arguing as if claim 1 reads an entire length of the sleeve flow port substantially corresponds to a portion of an entire length of the housing flow. However the claims only state a length of the sleeve flow port substantially corresponds to a length of the housing flow. Grimmer discloses a length of the sleeve flow port (77) substantially corresponds to a length (that defines a portion of the entire length) of the housing flow. The same response also applies to the arguments concerning the Bassinger reference.

The applicant argues the combination of Murray in view of Bassinger is improper. The applicant is reminded the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, the Bassinger reference states having a center adapter the is the same length as the sleeve flow port allows the ports to be positively sealed when pressure is exerted through the ports (col. 2, lines 10-13). As it would be advantageous to help more positively seal the ports when in a closed position, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the tool disclosed by Murray to have the adapter the same or greater than the length of the flow port in view of the teachings of Bassinger.

Applicant's arguments with respect to claims 13, 16-18,28-29 and 33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 571-272-7027. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


gmc


David Bagnell
Supervisory Patent Examiner
Technology Center 3670